The rediscovery and taxonomic relationships of *Gerygone igata amalia* Meise, 1931*

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In his revision of the genus *Gerygone* Gould, 1841 (Acanthizidae), Meise (1931) placed together as subspecies of *G. igata* the following 6 forms: *igata* (Quoy & Gaimard, 1830), the Grey Warbler of New Zealand; *modesta* Pelzeln, 1860 of Norfolk Island; *insularis* Ramsay, 1878, the Rainbird of Lord Howe Island; *richmondi* (Mathews, 1915), the Brown Warbler of southeastern Australia; *amalia* subsp. nov. of the Bowen district, mid-eastern Queensland; and *mouki* Mathews, 1912, the Northern Warbler of northeastern Queensland.

Since Meise's revision little taxonomic work has been undertaken in this group. Mack (1953) further extended the concept of *G. igata* to include the Western Warbler *G. fusca* and the Buff-breasted Warbler *G. levigaster.* Keast (1961: 360–361) regarded *mouki, amalia* and *richmondi* as constituting a distinct group, which he referred to as a species but designated *G. (igata) richmondi.* Storr (1973: 99) listed these 3 forms under *G. mouki,* remarking: "From north to south, these birds become darker above and below; whether there are sufficient steps in these clines for recognizing *"amalia"*, the Wide Bay population (briefly described by North 1903), and *"richmondi"*, is doubtful. Also uncertain is their relationship to *G. igata* of New Zealand." Hall *(in* Hall 1974: 170) treated *mouki* as a species consisting of *mouki, amalia* and *richmondi,* hesitating to follow Meise in regarding this group as conspecific with *igata* of New Zealand "until direct comparisons have been made with them in the field". Most recently, Storr (1984: 124) modified his earlier arrangement by recognizing *richmondi* subspecifically within *G. mouki,* though tentatively including *amalia* in *richmondi.*

Mack's decision to lump *G. fusca* and *G. levigaster* with *G. igata* has generally been ignored, correctly in our opinion (see Keast 1961, Ford 1981). Of Mack's analysis it remains only to point out that of the 2 specimens he listed under *G. igata mastersi,* that from Brown's Creek (QM 0.5231) is referable to the Large-billed Warbler *G. magnirostris,* and that from Mount Finnegan (QM 0.5232) to the form *mouki.*

However, we regard even Meise's (1931) concept of *G. igata* as too broad, and believe that some of the forms he included may on further investigation be seen to merit specific status, or even a transfer to other species. We base this opinion on the following 3 points. First, the rising and falling song of nominate *igata* (as recorded on a tape provided by Dr J. Kendrick) differs strongly from the song of *mouki* heard by S.A.P. in 1964, which consisted of a short sharply-rising phrase of 5-6 notes, rapidly repeated (Parker *in* Hall 1974: 170; see also Diamond 1972: 226). Secondly, Hull (1910), in commenting on the song of the now extinct *insularis,* compared it not to that of *modesta* (which he knew), but to that of the White-throated Warbler *G. olivacea.* Thirdly, *insularis*

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appears most similar in its coloration not to any other form in Meise's *igata*-group but to *G. flavolateralis* of New Caledonia, the New Hebrides and Rennell Island, differing mainly in its larger size. Obviously there is scope for further work in this group, particularly on the songs. In the meantime, we provisionally regard the forms *igata, modesta* and *insularis* as not conspecific with the Australian group *richmondi, amalia* and *mouki.*

As noted above, taxonomic treatments of the Australian forms have varied, but all have been hindered by the lack of comparative material of *amalia,* the 2 original specimens of which were destroyed in 1945 (S. Eck – 23 Sep 1983; W. Meise – 6 Oct 1984). With the rediscovery, however, of *amalia* in 1975 and further sampling in 1978 and 1980, this situation has now improved.

The rediscovery of *amalia* was made by Mr D. P. Vernon during a faunal survey of the eastern Australian rainforests conducted jointly by the Queensland Museum (QM) and the Australian Museum (AM). Mr Vernon collected 2 specimens (QM 0.15961-2) near Crediton (21°13′S, 148°34′E) in the Clarke Range, Queensland, on 16 and 17 April 1975, an unsexed bird and a female netted along the rainforest's edge, where they were foraging in *Lantana camara.* Individuals were observed at other sites nearby. During a second visit in 1978, W.E.B., N.W.L. and G. J. Ingram secured 4 more specimens along Massey Creek (21°03′S, 148°07′E), in nets by the water's edge and at a road-cutting: 3 males on 2 December (QM 0.17538, 0.17546, 0.17553) and one male on 3 December (AM 0.56752, formerly QM 0.17555). In 1980 a further 3 specimens were collected by W.E.B. and N.W.L. several hundred metres from Massey Creek: 2 males, 2 May (AM 0.53767) and 5 May (AM 0.53768) and a female, 9 May (AM 0.53766); all 3 were foraging in the upper foliage of regrowth adjacent to a road-cutting.

Meise (1931: 353) based *amalia* on 2 specimens labelled 'Bowen', collected by Amalie Dietrich (possibly in 1869–1870, *vide* Whittell 1954: 201): the holotype in the State Museum of Zoology, Dresden (C27188) and a paratype in the Hamburg Museum. He diagnosed *amalia* as: "... like *G. i. richmondi*

TABLE 1

Measurements (mm) of *Gerygone mouki, G. richmondi amalia* and *G. r. richmondi* (number of specimens in brackets). Bill-length is from angle with skull, bill-width and bill-depth are at hind-edge of nostrils. The figures for *G. r. richmondi* include those for the skins from Wide Bay and the Bunya Mts (both males), but not those for the Gympie skin, which is unsexed, and whose respective dimensions are 48.5, 43.8, 11.5, 3.6, 2.5 mm.

	Wing	Tail	Bill-length	Bill-width	Bill-depth
mouki					
♂♂	48.5–51.9(7)	41.3–46.3(7)	11.4–13.4(7)	2.7–3.4(7)	2.3–3.0(6)
♀♀	47.5, 51.0(2)	41.4, 44.4(2)	12.2, 12.4(2)	3.3, 3.4(2)	2.4, 2.7(2)
amalia					
♂♂	49.4–52.5(5)	44.4–47.8(5)	11.2–12.6(5)	3.2–3.5(5)	2.5–2.8(5)
♀♀	47.4, 49.9(2)	42.6, 44.1(2)	12.1, 12.5(2)	3.3, 3.3(2)	2.4, 2.7(2)
richmondi					
♂♂	47.2–50.6(11)	41.8–47.2(12)	10.9–12.1(13)	2.7–3.6(13)	2.3–2.6(12)
♀♀	48.0, 50.1(2)	41.5, 42.7(2)	11.6, 12.1(2)	2.8, 3.0(2)	2.3, 2.5(2)

Mathews but upperparts less rusty, greyer, chin and cheeks greyish instead of whitish; rust-brown tinge on breast, flanks, belly and undertail-coverts entirely receding, replaced by a brownish yellow, on the breast by a more greyish olive tinge [ganz zurücktretend, durch einen bräunlichgelben, an der Brust mehr grau olivenfarbenen Anflug, ersetzt]. Differs from *mouki* Mathews by its browner back, greyer cheeks and more vivid tinge on flanks'' (translated by Miss A. Gackle and Dr W. Meise). The new material from the Clarke Range conforms well to this diagnosis, and we have no hesitation in ascribing it to *amalia.* On the basis of the fresh material, *amalia* does indeed appear to be distinct. Its dorsum is intermediate in colour between the olive-grey dorsum of *mouki* and the olive-brown one of *richmondi,* and it has the contrasting ashy-grey face, hindbrow and sides of neck of *richmondi* (areas concolorous with the dorsum in *mouki).* It differs further from *richmondi* in having the throat and upper breast whiter, less grey. *mouki* differs from *amalia* and *richmondi* not only in lacking the ashy-grey on the head and neck, but also in having the buff tinge of the ventral surface more or less concentrated in a faint breastband rather than generally suffused over the breast and flanks. All 3 forms are similar in measurements (Table 1).

The form *mouki* occurs in northeastern Queensland, mainly above 250 m, north to Mount Amos and south to Paluma in the Mount Spec district (QM 0.10403, Paluma, examined). *amalia* is known with certainty only from above 920 m in the Clarke Range, which is 175 km south of the Mount Spec district across the relatively dry Burdekin Gap (possibly the 2 original specimens labelled 'Bowen' were really from the Clarke Range, which is 60–70 km inland from Bowen; and see Storr's 1984: 124 opinion that some of Dietrich's specimens are not accurately labelled). Whether there is a similar disjunction between the ranges of *amalia* and *richmondi* remains to be determined. Meise (1931) reported *richmondi* north to the Richmond River, northeastern New South Wales. In fact, *richmondi* extends further north to at least Wide Bay, skins from Brisbane (QM 0.12413, 0.12414, 0.12416), Esk (QM 0.10770), Bunya Mountains (QM 0.5483), Gympie (QM 0.3022) and Wide Bay (AM 0.23355) all falling within the range of variation of *richmondi.* In addition, the 1975 survey recorded, but did not collect, *'richmondi'* from 2 study sites at Bulburin (540–580 m), 225 km northwest of Wide Bay.

The lower altitudinal limit of *amalia* in the Clarke Range is not known. The survey of 1975 found it above 920 m but undertook no fieldwork between 920 m and 180 m. It was not seen at Finch Hatton (180 m) at the base of the Clarke Range, or at 2 sites near Proserpine (Mount Dryander and Brandy Ck, c. 120 m). Storr (in litt.) gave among the manuscript sources of his *List of Queensland Birds* (1973) a sighting of the 'Brown Warbler' from Mount Dryander made by Mr R. L. Pink in 1964 whilst on the second Harold Hall Expedition. However, S.A.P., who was on this expedition, recalls no report of this species at that camp, although the party was particularly looking for it. Possibly 'Brown Warbler' was a slip of the pen for 'Brown Thornbill', which the party did record there (Hall *in* Hall 1974: 179, Boles 1983).

If, from among the morphological characters discussed above, we take the presence or absence of the contrasting ashy-grey of face, hindbrow and sides of neck as having the greatest taxonomic significance, then the fundamental division among the 3 Australian forms is between *mouki* on the one hand and *amalia* and *richmondi* on the other. Because *amalia* is geographically closer to

mouki (c. 175 km) than to *richmondi* (c. 800 km, or c. 625 km if the Bulburin population proves referable to *richmondi)* yet still shows the facial and ventral characters of *richmondi,* we are inclined to regard *mouki* as a separate species, *G. mouki,* the Northern Warbler, and *amalia* and *richmondi* as conspecific in *G. richmondi,* the Brown Warbler. The reuniting of *G. mouki* and *G. richmondi* as one species may be warranted, but ought not to precede further studies, including comparisons of song, nidification and other behaviour. It is of interest that 2 presumed allospecies, the Mountain Thornbill *Acanthiza katherina* (highlands of northeastern Queensland) and the Brown Thornbill *A. pusilla* (southeastern Australia north to Rockhampton, with a distinctive isolate in the Clarke Range – Boles 1983), show the pattern of distribution described above for *G. mouki* and *G. richmondi.* By analogy with the distribution of *A. p. pusilla,* the unsampled Bulburin population might be expected to be referable to *G. r. richmondi.*

The original type-material of *amalia* having been destroyed, it might seem appropriate to designate a neotype. However, the circumstances do not appear to meet the exceptional requirements of this step as laid down in the International Code of Zoological Nomenclature Article 75.

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